ABSTRACT

A silicon compound represented by Formula (1). In Formula (1), R1 is a group independently selected respectively from the group consisting of a hydrogen atom, alkyl, substituted or non-substituted aryl and substituted or non-substituted 5 arylalkyl, and A1 is an organic group substituted with a halogenated sulfonyl group and is preferably a group represented by Formula (2). In Formula (2), X is halogen; R2 is alkyl; a is an integer of 0 to 2; and Z^1 is a single bond or alkylene having a carbon number of 1 to 10.

10

$$\begin{array}{c|c}
(R^2)_a \\
 & \\
X - S \\
0
\end{array}$$
(2)

The silicon compound provided by the present invention is a silsesquioxane derivative having an excellent living 15 polymerizable radical polymerization initiating function. For example, it is possible to commence polymerization by allowing an acryl base monomer to coexist to form an acryl base polymer

making use of one point of the structure of the silsesquioxane in the present invention as a starting point. Because a halogenated sulfonyl group has a strong electrophilicity, it is possible to synthesize various silsesquioxane derivatives by reacting the silicon compound provided by the present invention with various nucleophilic reagents, and it can actively be used as an intermediate useful for organic synthesis.